

METHOD AND APPARATUS FOR CONTROLLING CURRENT
DEMAND IN AN INTEGRATED CIRCUIT

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Abstract of the Disclosure

10 The present invention relates generally methods and apparatus for
controlling current demand in an integrated circuit. One embodiment relates to
a method that includes detecting if a supply voltage overshoot or a undershoot
is present or anticipated, and if detected, controlling current consumed by a
power consumption circuitry to ensure that the power supply voltage remains
within acceptable levels. Other embodiments relate to an integrated circuit
having a capacitive decoupling structure, power consumption circuitry, and
power consumption control circuitry for controlling current consumed by at
15 least a portion of the power consumption circuitry. Therefore, embodiments of
the invention relate to monitoring and controlling power consumption (i.e.
current demand) of a power consumption circuit (such as an integrated circuit)
in order to prevent devastating supply voltage undershoots, overshoots, and
oscillations.

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